ATTACHMENT A: CROSS REFERENCES

Cross Reference

This application is a divisional of U.S. Patent

Application S/N 09/046,120 filed 20 Mar 1998 by E. B. Boden,

D. G. Geiser and F. V. Paxhia for System and Method for

Business Process Space Definition.

ATTACHMENT B: MARKED UP AMENDED CLAIMS

- 1 1. [Amended] Method for representing any business process
- or processes as a set or sets of tuples, comprising the
- 3 steps of:
- defining each of a plurality of processes as a 3-tuple
- 5 including a noun, a verb and an attribute; and
- 6 displaying a selected process as a point in navigation
- 7 space.
- 1 2. The method of claim 1, further comprising the steps of:
- displaying selection lists, including a noun selection
- list, a verb selection list and an attribute selection
- 4 list;
- 5 responsive to user selection of a 3-tuple including
- 6 noun, a verb and an attribute from said selection
- 7 lists, highlighting the point in navigation space
- 8 corresponding to said 3-tuple.
- 9 3. [Amended] The method of claim 1, further comprising
- 10 the steps of:
- responsive to user selection of a zoom in action in END9 1995 0140 US2 18

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12		connection with a selected process point, determining
13		if said selected process point is zoomable; and, if so
14		highlighting in a new navigation space the process
15		points referenced by selected process point
16		definitions <u>;</u>
17		said zoom actions displaying within nested navigation
18		space logical changes in context for navigating said
19		process space to explore or define business processes.
1	4.	The method of claim 3, further comprising the steps of:
2		responsive to user selection of a zoom out action in
3		connection with a selected process point, determining
4		if said selected process point is zoomable; and, if so
5		highlighting in a new navigation space the zoomed to
6		process point.
1	5.	[Amended] The method of claim 1, further comprising the
2	step	s of:
3		responsive to user selection of a create process
4		action, accepting and storing a 3-tuple and process

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5	definition	<u>in</u> <u>a</u>	<u>database</u>	<u>of</u>	generally	represented
6	business pr	coces	ses.			

- 1 6. [Amended] The method of claim 5, further comprising the steps of:
- responsive to user selection of a process edit action
 in connection with a selected process, displaying the
 process definition corresponding to said selected
 process for editing said selected process by said user.
- 7. [Amended] The method of claim 5, further comprising the steps of:
 - responsive to user selection of a run process action in connection with a selected process <u>from within the context of all other defined business processes for an organization in a multi-dimensional process space</u>, executing said process.
- 9. [Amended] System for representing <u>any</u> business <u>process</u>
 2 <u>or</u> processes, comprising:
- a store containing for each of a plurality of <u>said</u>

 processes a 3-tuple including a noun, a verb and an

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	6	a display operable to display a selected process as a
	7	point in navigation space.
	1	10. [Amended] A program storage device readable by a
	2	machine, tangibly embodying a program of instructions
	3	executable by a machine to perform method steps for
	4	representing any business processes, said method steps
	5	comprising:
14	6	defining each of a plurality of <u>said</u> processes as a 3-
	7	tuple including a noun, a verb and an attribute; and
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:	8	displaying a selected process as a point in navigation
	9	space; said point representing logical changes in
J.	10	context of said navigation space for exploring or
i.d.	11	defining business processes.
	1	11. [Amended] An article of manufacture comprising:
	2	a computer usable medium having computer readable
	3	program code means embodied therein for displaying

representations of <u>any</u> business processes, the computer

readable program means in said article of manufacture

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attribute; and

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7	computer readable program code means for causing a
8	computer to effect defining each of a plurality of said
9	processes as a 3-tuple including a noun, a verb and an
. 0	attribute; and

computer readable program code means for causing a computer to effect displaying a selected process as a point in navigation space; said process point representing logical change in context of said navigation space for exploring or defining business processes.

ATTACHMENT C: CLEAN SET OF ORIGINAL, AMENDED AND NEW CLAIMS: ALL CLAIMS IN THE CASE

- 1 1. Method for representing any business process or
- 2 processes as a set or sets of tuples, comprising the steps
- 3 of:
- 4 defining each of a plurality of processes as a 3-tuple
- 5 including a noun, a verb and an attribute; and
- 6 displaying a selected process as a point in navigation
- 7 space.
- 1 2. The method of claim 1, further comprising the steps of:
- displaying selection lists, including a noun selection
- list, a verb selection list and an attribute selection
- 4 list;
- 5 responsive to user selection of a 3-tuple including
- 6 noun, a verb and an attribute from said selection
- 7 lists, highlighting the point in navigation space
- 8 corresponding to said 3-tuple.
- 9 3. The method of claim 1, further comprising the steps of:

	13		highlighting in a new navigation space the process
	14		points referenced by selected process point
	15		definitions;
	16		said zoom actions displaying within nested navigation
I.S	17		space logical changes in context for navigating said
	18		process space to explore or define business processes.
	1	4.	The method of claim 3, further comprising the steps of:
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	2		responsive to user selection of a zoom out action in
122	3		connection with a selected process point, determining
lai ka	4		if said selected process point is zoomable; and, if so
	5		highlighting in a new navigation space the zoomed to
	6		process point.
	1	5.	The method of claim 1, further comprising the steps of:

responsive to user selection of a create process

action, accepting and storing a 3-tuple and process

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responsive to user selection of a zoom in action in

connection with a selected process point, determining

if said selected process point is zoomable; and, if so

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- definition in a database of generally represented business processes.
- 1 6. The method of claim 5, further comprising the steps of:
- 2 responsive to user selection of a process edit action 3 in connection with a selected process, displaying the
- 4 process definition corresponding to said selected
- 5 process for editing said selected process by said user.
- 7. The method of claim 5, further comprising the steps of:
- responsive to user selection of a run process action in connection with a selected process from within the
- 4 context of all other defined business processes for an
- 5 organization in a multi-dimensional process space,
- 6 executing said process.
- 9. System for representing any business process or
- processes, comprising:
- a store containing for each of a plurality of said
- 4 processes a 3-tuple including a noun, a verb and an
- 5 attribute; and

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6	a display operable to display a selected process as a
7	point in navigation space.

- 1 10. A program storage device readable by a machine,
- 2 tangibly embodying a program of instructions executable by a
- 3 machine to perform method steps for representing any
- 4 business processes, said method steps comprising:
- defining each of a plurality of said processes as a 3tuple including a noun, a verb and an attribute; and
- displaying a selected process as a point in navigation

 space; said point representing logical changes in

 context of said navigation space for exploring or

 defining business processes.
 - 11. An article of manufacture comprising:
- a computer usable medium having computer readable

 program code means embodied therein for displaying

 representations of any business processes, the computer

 readable program means in said article of manufacture

 comprising:
- 7 computer readable program code means for causing a END9 1995 0140 US2 27

8		computer to effect defining each of a plurality of said
9		processes as a 3-tuple including a noun, a verb and an
10		attribute; and
11		computer readable program code means for causing a
12		computer to effect displaying a selected process as a
13		point in navigation space; said process point
14		representing logical change in context of said
15		navigation space for exploring or defining business
16		processes.
1	12.	Method for representing any business processes
2	compr	ising the steps of:
3		defining each of a plurality of processes as a 3-tuple
4		including a noun, a verb and an attribute; and
5		displaying a selected process as a process point in
6	:	navigation space; and

nesting a first navigation space in a process point in
a second navigation space, said process points
representing logical changes in context of said
navigation spaces for exploring or defining business
processes.

- 1 13. The method of claim 12, further comprising the step of
- 2 displaying said first and second navigation spaces in two
- 3 panels within a window display.
- 1 14. The method of claim 13, further comprising the step of
- displaying within each said navigation space a noun list, a
- 3 verb list, and an attribute list.
- 1 15. The method of claim 14, further comprising the step of
- 2 highlighting a point in each panel together with the
- 3 corresponding entries in said lists defining the noun, verb
- and attribute dimensions of said highlighted point.
- 1 16. The method of claim 12, further comprising the step of
- enabling a user to traverse nested navigation space.
- 3 20. The method of claim 12, further comprising the step of
- 4 enclosing a process space within a plurality of process
- 5 points.
- 1 33. Method for defining any current and future processes of
- an organization in a manner which facilitates understanding,
- 3 use and change, comprising the steps of:

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4	providing a business process representation including a
5	set of points in a display of n-dimensional space, each
6	point including at least one verb dimension, at least
7	one noun dimension, and at least one attributes
8	dimension, said set of points representing logical
9	changes in context of said n-dimensional space for
10	exploring or defining business processes; and
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- selecting a said point selectively to view, modify or 12 13 execute the business process represented by said point.
 - The method of claim 33, further comprising the step of providing in at least one of said dimensions indicia the selection of which displays the corresponding noun, verb or attribute entries defined by a particular user.
- 5 A business process representation comprising:
- 6 a point in n-dimensional space including at least one verb dimension, at least one noun dimension, and at 7 8 least one attributes dimension; said process point representing logical change in context of said space 9 10 for exploring or defining business processes.
- 1 A program storage device readable by a machine, END9 1995 0140 US2 30

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- 2 tangibly embodying a program of instructions executable by a
- 3 machine to perform method steps for representing business
- 4 processes, said method steps comprising
- 5 defining each of a plurality of processes as a 3-tuple
- 6 including a noun, a verb and an attribute; and
- displaying a selected process as a process point in
- 8 navigation space; and
- 9 nesting a first navigation space in a process point in
- 10 a second navigation space;
- said process points representing logical changes in
- 12 context of said navigation space for exploring or
- defining business processes.
 - 1 50. A program storage device readable by a machine,
 - 2 tangibly embodying a program of instructions executable by a
 - machine to perform method steps for delivering workflow
 - 4 solutions that are immediately useful for customers and
 - 5 readily modified by said customers, said method steps
 - 6 comprising:
 - 7 providing to a customer a generic business process END9 1995 0140 US2 31

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8	representation including a set of points in n-
9	dimensional space, each point including at least one
10	verb dimension, at least one noun dimension, and at
11	least one attributes dimension; and

enabling said customer by selecting a said point to modify said representation for the process represented by said point by selectively adding, deleting and changing a set of actions representing said verb dimension, a set of managed resource objects representing said noun dimension, and a set of expressions representing said attributes dimension, each said expression being capable of evaluation to a Boolean value.

- A program storage device readable by a machine, tangibly embodying a program of instructions executable by a machine to perform method steps for capturing in workflow solutions the policies a business uses to guide its activities, said method steps comprising:
- visually displaying in a display panel a navigation space and a plurality of scrollable lists including a noun list, a verbs list and an attributes list;

	11	in said navigation space a point representing a process
	12	tuple;
	13	responsive to selection of two entries from two of said
	14	lists, highlighting in said navigation space a
	15	highlighted plane of points representing process tuples
	16	for all entries in the list not selected;
	17 18 19	responsive to selection of a highlighted point
igi igi	18	displaying the definition the process represented by
	19	said highlighted point.
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	1	52. A program storage device readable by a machine,
	2	tangibly embodying a program of instructions executable by a
	3	machine to perform method steps for making known within an
244	4	overall business context processes impacted by a policy,
	5	said method steps comprising:
	6	visually displaying in a display panel a navigation

responsive to selection of a noun list entry, a verbs

list entry, and an attributes list entry, highlighting

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representing in said navigation space a set of points 9 END9 1995 0140 US2 33

noun list, a verbs list and an attributes list;

space and a plurality of scrollable lists including a

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10	in n-dimensional space, each said point being a process
11	tuple having a verb dimension, a noun dimension, and an
12	attributes dimension;
13	responsive to selection of a policy in said attributes
14	list, highlighting in said navigation space all process
15	tuples representing process points including said
16	policy.
1	53. A program storage device readable by a machine,
2	tangibly embodying a program of instructions executable by a
3	machine to perform method steps for enabling understanding
4	of the mechanisms, interactions and inter-relationships of a
5	business process, said method steps comprising:
6	representing said business process as a set of points
7	in n-dimensional space including at least one verb
8	dimension, at least one noun dimension, and at least
9	one attributes dimension;
10	navigating said space by selecting and opening a
11	process point to display another process
12	representation; and
13	extending said space selectively by redefining said

- 14 dimensions and grouping scalar definitions into super 15 scalar values.
- 1 A program storage device readable by a machine,
- 2 tangibly embodying a program of instructions executable by a
- 3 machine to perform method steps for defining current and
- 4 future processes of an organization in a manner which
- 5 facilitates understanding, use and change, said method steps
- 6 comprising:
- 7 8 9 10 providing a business process representation including a set of points in n-dimensional space, each point including at least one verb dimension, at least one noun dimension, and at least one attributes dimension;]] 11 said process points representing logical changes in
- 12 13 context of said space for exploring or defining
 - business processes; and
 - 14 selecting a said point selectively to view, modify or
 - 15 execute the business process represented by said point.
 - 16 System for representing any business processes
 - 17 comprising:
 - 18 means for defining each of a plurality of processes as END9 1995 0140 US2 35

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19	a 3-tuple including a noun, a verb and an attribute;
20	means for displaying a selected process as a process
21	point in navigation space; said process point
22	representing logical changes in context of navigation
23	space for exploring or defining business processes.;
24	and
25	moons for resting a first regiseries spage in a process
	means for nesting a first navigation space in a process
26	point in a second navigation space.
1	59. System for defining any current and future processes of
2	an organization in a manner which facilitates understanding,
3	use and change, comprising the steps of:
4	means for providing a business process representation
5	including a set of points in n-dimensional space, each
6	point including at least one verb dimension, at least
7	one noun dimension, and at least one attributes
8	dimension; said points representing logical changes in
9	context of navigation space for exploring or defining
10	business processes; and
11	means for selecting a said point selectively to view,
12	modify or execute the business process represented by

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